## INTERNATIONAL SEARCH REPORT

PCT/GB2004/004675

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B01D46/52

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

 $\begin{array}{ccc} \text{Minimum documentation searched (classification system followed by classification symbols)} \\ \text{IPC 7} & \text{B01D} \end{array}$ 

Decumentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUME	ENTS CONSIDERED TO BE RELEVANT			
Category °	Citation of document, with indication, where appropriate, of	the relevant passages	Relevant to claim No.	
Х	EP 0 542 396 A (USM ESPANA SA UNITED SHOE MACHINERY (GB)) 19 May 1993 (1993-05-19) abstract; figures 1,4 column 10, line 28 - line 32	; BRITISH	1	
A	DE 33 04 350 A (SCHUMANN TEXT INDUSTRIEPROD) 9 August 1984 page 6, line 16 - line 21 page 8, line 27 - page 9, line 1-7	(1984-08-09)		
A	GB 2 294 649 A (BTR PLC) 8 May 1996 (1996-05-08) abstract; figure 5 page 7, line 3 - line 6	-/		
χ Furth	ner documents are listed in the continuation of box C.	X Patent family members are listed	in annex.	
"A" docume consid "E" earlier of filing d "L' docume which i citation "O" docume other r "P" docume	nt which may throw doubts on priority claim(s) or is cited to establish the publication date of another in or other special reason (as specified) and the first referring to an oral disclosure, use, exhibition or	"T" later document published after the intor priority date and not in conflict with cited to understand the principle or the invention.  "X" document of particular relevance; the cannot be considered novel or cannot involve an inventive step when the de "Y" document of particular relevance; the cannot be considered to involve an indocument is combined with one or ments, such combination being obvicin the art.  "8" document member of the same patent	n the application but heavy underlying the claimed invention at the considered to bocument is taken alone claimed invention eventive step when the core other such docupous to a person skilled.	
Date of the	actual completion of the international search	Date of mailing of the international search report		
2	1 January 2005	31/01/2005		
Name and n	nailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL – 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer Sembritzki, T		

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Category °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT  Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.	
Catogory	O. M. C.			
A	DE 40 21 607 A (SCHUMANN KLAUS) 9 January 1992 (1992-01-09) abstract; figures 1,9			
A	DE 40 21 607 A (SCHUMANN KLAUS) 9 January 1992 (1992-01-09) abstract; figures 1,9  EP 0 692 293 A (NITTETSU MINING CO LTD) 17 January 1996 (1996-01-17) abstract; figures 19-22			

## **INTERNATIONAL SEARCH REPORT**

PCT/GB2004/004675

Patent document cited in search report	Ė	Publication date		Patent family member(s)	Publication date
EP 0542396	Α	19-05-1993	EP JP US	0542396 A2 5277321 A 5230455 A	19-05-1993 26-10-1993 27-07-1993
DE 3304350	Α	09-08-1984	DE	3304350 A1	09-08-1984
GB 2294649	Α	08-05-1996	WO	961 <b>4</b> 134 A2	17-05-1996
DE 4021607	Α	09-01-1992	DE	4021607 A1	09-01-1992
EP 0692293	Α	17-01-1996	JP JP JP AT CA CN DE DE EP US	3383423 B2 8024544 A 3383426 B2 8033823 A 185494 T 2144298 A1 1119962 A 69512713 D1 69512713 T2 0692293 A1 5558689 A	04-03-2003 30-01-1996 04-03-2003 06-02-1996 15-10-1999 13-01-1996 10-04-1996 18-11-1999 09-03-2000 17-01-1996 24-09-1996